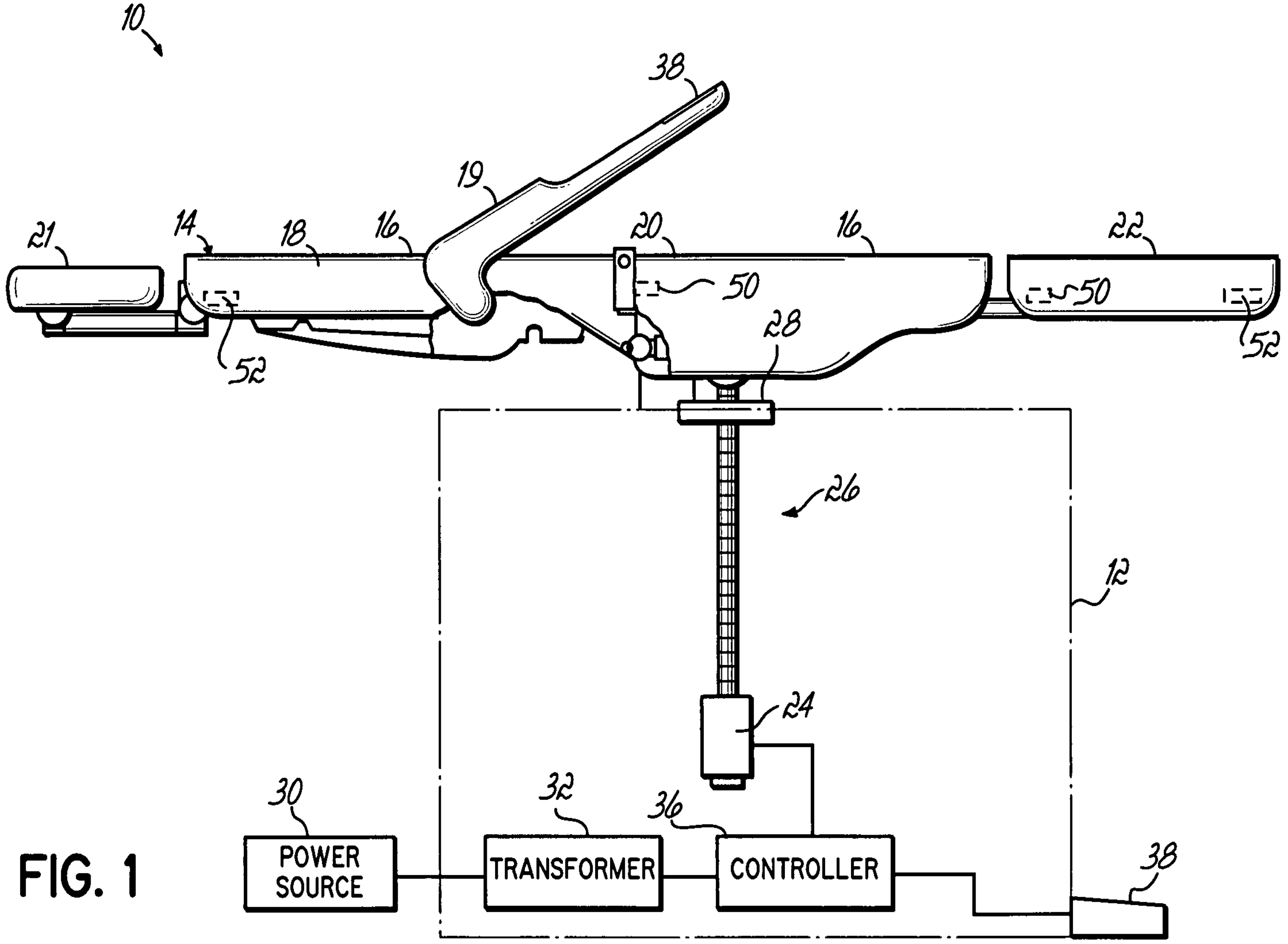
POWER SOURCE
TRANSFORMER
CONTROLLER

FIG. 1

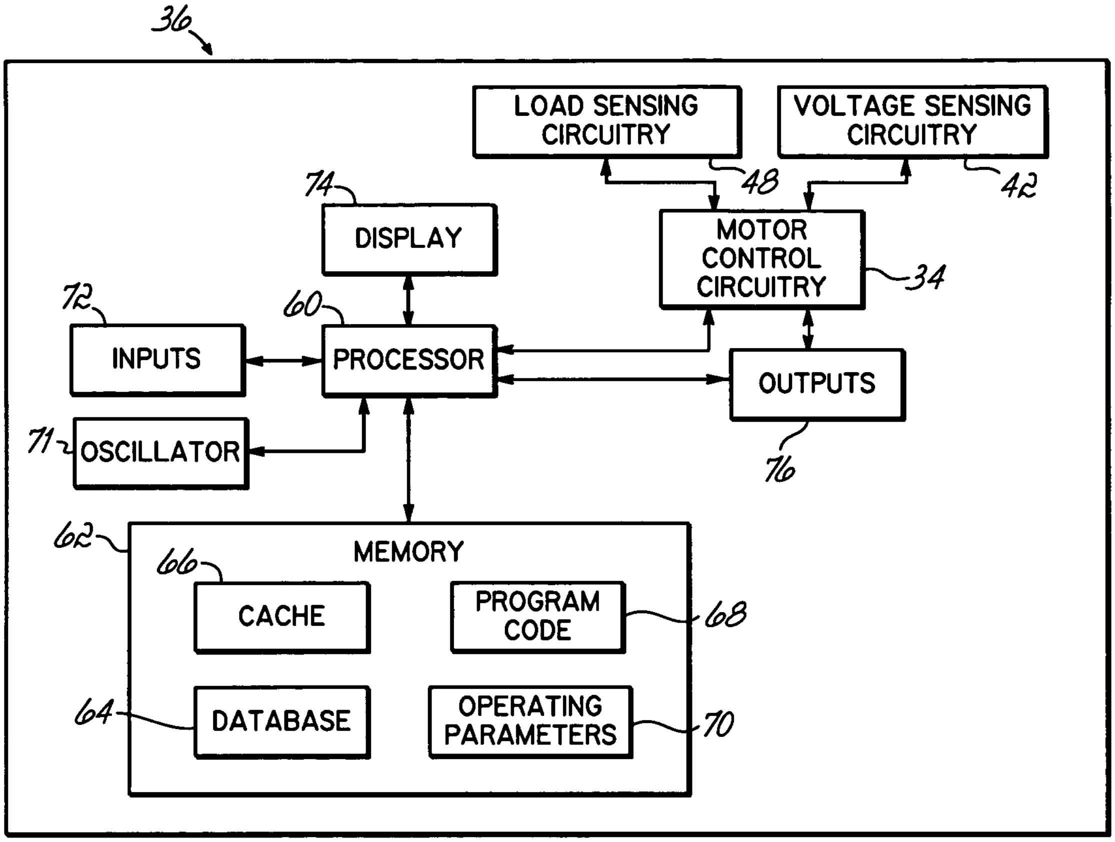
36
LOAD SENSING CIRCUITRY
VOLTAGE SENSING CIRCUITRY
48
42
74
DISPLAY
MOTOR CONTROL CIRCUITRY
34
72
60
INPUTS
PROCESSOR
OUTPUTS
71
OSCILLATOR
76
62
MEMORY
66
CACHE
PROGRAM CODE
68
64
DATABASE
OPERATING PARAMETERS
70

FIG. 2

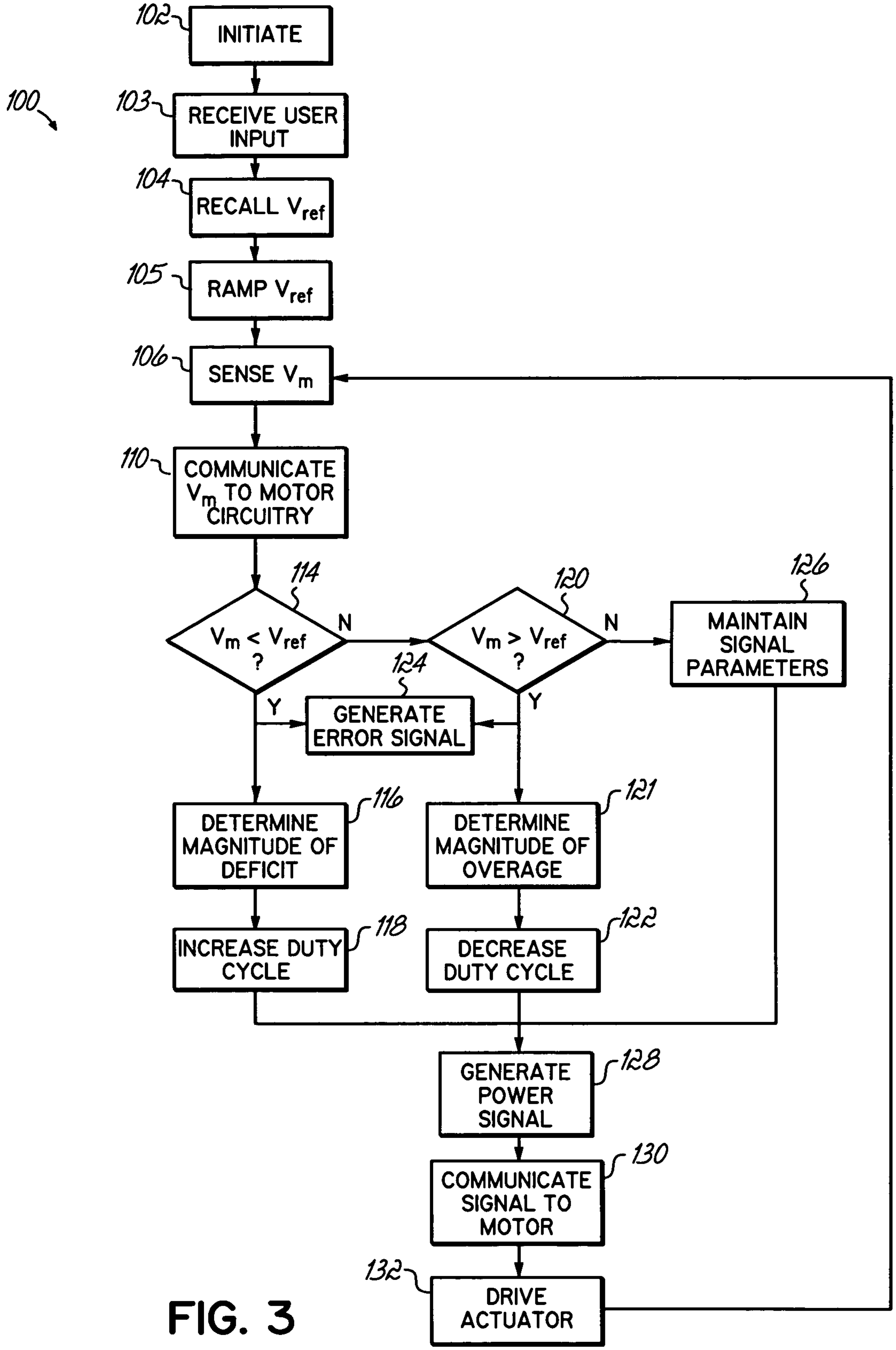
100
102
INITIATE
103
RECEIVE USER INPUT
104
RECALL V_{ref}
105
RAMP V_{ref}
106
SENSE V_m
110
COMMUNICATE V_m TO MOTOR CIRCUITRY
114
$V_m < V_{ref}$?
N
Y
120
$V_m > V_{ref}$?
N
Y
126
MAINTAIN SIGNAL PARAMETERS
124
GENERATE ERROR SIGNAL
116
DETERMINE MAGNITUDE OF DEFICIT
121
DETERMINE MAGNITUDE OF OVERAGE
118
INCREASE DUTY CYCLE
122
DECREASE DUTY CYCLE
128
GENERATE POWER SIGNAL
130
COMMUNICATE SIGNAL TO MOTOR
132
DRIVE ACTUATOR

FIG. 3

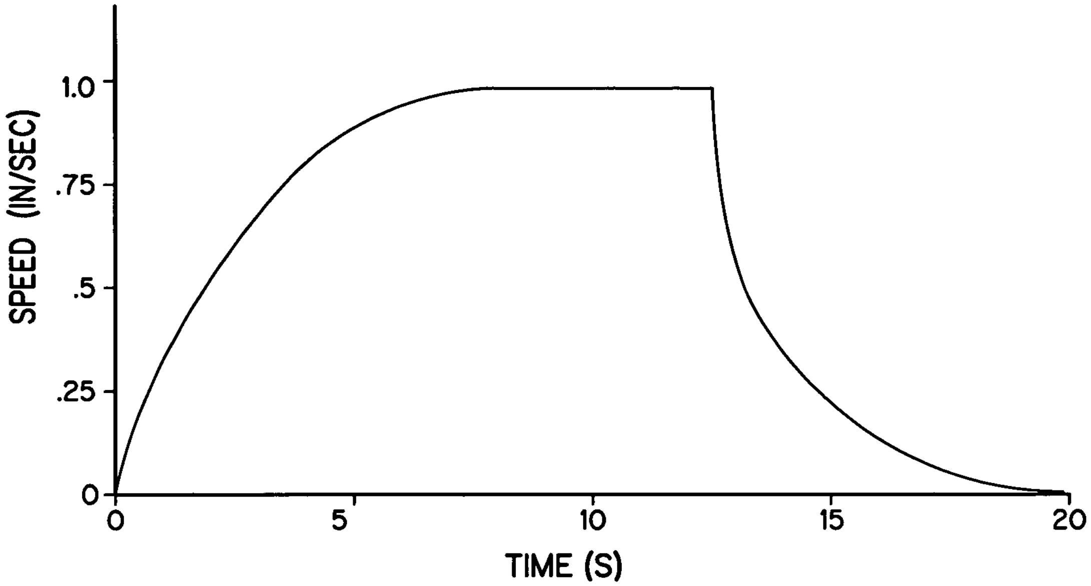

FIG. 4

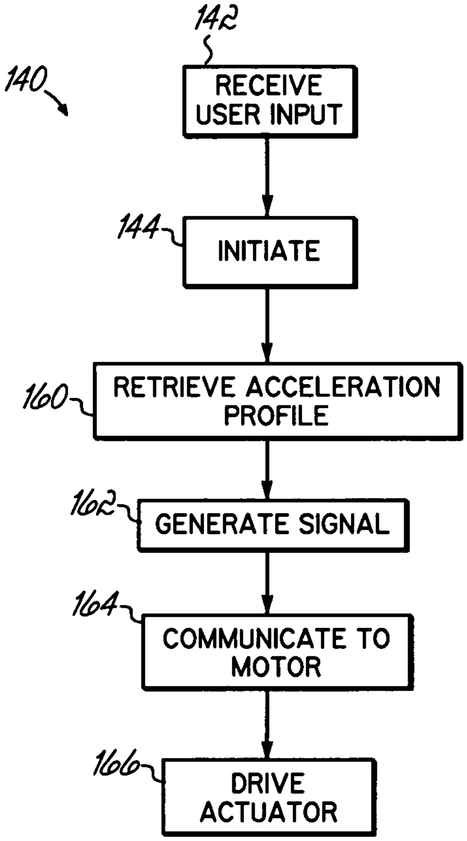
140
142
RECEIVE USER INPUT
144
INITIATE
160
RETRIEVE ACCELERATION PROFILE
162
GENERATE SIGNAL
164
COMMUNICATE TO MOTOR
166
DRIVE ACTUATOR

FIG. 5